

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1-11. (Canceled)

12. (Currently Amended) A composition comprising:

at least one ~~antibody~~ selected from the group consisting of:

anti-multiple sclerosis-associated retrovirus/human endogenous retrovirus-W envelope protein soluble fraction antibodies (anti-MSRV/HERV-W Env-SU antibodies), and

mixtures of anti-MSRV/HERV-W Env-SU antibodies and anti-toll-like receptor 4 antibodies (anti-TLR4 antibodies)-antibodies capable of binding specifically to the TLR4 receptor for the soluble fraction of the multiple sclerosis-associated retrovirus/human endogenous retrovirus-W envelope protein (MSRV/HERV-W Env protein), and
~~mixtures thereof, and~~

a pharmaceutically acceptable carrier;

wherein ~~said~~ the soluble fraction of the MSRV/HERV-W Env protein comprises the sequence set forth in SEQ ID NO:3 and ~~said at least one~~ the antibody or mixture of antibodies inhibits an interaction between ~~said~~ the soluble fraction of the MSRV/HERV-W Env protein and ~~said~~ the TLR4 receptor ~~causing the pro-inflammatory cascade induced by the activation of~~ MSRV/HERV-W.

13. (Previously Presented) The composition of claim 12, further comprising a pharmaceutically acceptable vector.

14. (Withdrawn-Currently Amended) The composition of claim 12, wherein the ~~at least one antibody composition~~ comprises the mixture of at least one anti-MSRV/HERV-W

Env-SU antibody and at least one anti-TLR4 antibody ~~capable of binding specifically to the TLR4 receptor for the soluble fraction of the MSRV/HERV-W Env protein.~~

15. (Withdrawn) The composition of claim 12, wherein the anti-MSRV/HERV-W Env-SU antibody is selected from the group consisting of: 3B2H4, 13H5A5, and 3H10F10, and wherein the anti-TLR4 antibody is HTA125.

16. (Currently Amended) A method of treating ~~a pathology associated with MSRV/HERV-W~~ multiple sclerosis, the method comprising administering to an individual having ~~said pathology~~ multiple sclerosis the composition of claim 12, ~~wherein the at least one antibody is present in an amount sufficient to inhibit the pro-inflammatory cascade induced by the activation of MSRV/HERV-W.~~

17. (Canceled)

18. (Currently Amended) A method of inhibiting an interaction between a soluble fraction of a multiple sclerosis-associated retrovirus/human endogenous retrovirus-W envelope protein (MSRV/HERV-W Env protein) and a ~~TLR4 (toll-like receptor 4) receptor (TLR4)~~ for ~~said the~~ soluble fraction, ~~said interaction causing the pro-inflammatory cascade induced by the activation of MSRV/HERV-W,~~ the method comprising:

administering to an individual in need thereof a composition ~~comprising~~ comprising:

_____ at least one ~~antibody~~ selected from the group consisting of:

_____ anti-multiple sclerosis-associated retrovirus/human endogenous retrovirus-W envelope protein soluble fraction antibodies (anti-MSRV/HERV-W Env-SU antibodies), and

_____ mixtures of anti-MSRV/HERV-W Env-SU antibodies and anti-toll-like receptor 4 antibodies (anti-TLR4 antibodies) ~~capable of binding specifically to said~~

soluble fraction of the MSR/V-HERV-W Env protein, anti-TLR4 antibodies capable of binding specifically to said the TLR4 receptor, and mixtures thereof, and _____ a pharmaceutical carrier;

wherein ~~said~~ the soluble fraction of the MSRV/HERV-W Env protein comprises the sequence set forth in SEQ ID NO:1.

19. (Withdrawn-Currently Amended) The method of claim 18, wherein the ~~at least one antibody composition comprises the mixture of~~ at least one anti-MSRV/HERV-W Env-SU antibody and at least one anti-TLR4 antibody ~~capable of binding specifically to the soluble fraction of the MSRV/HERV-W Env protein or anti-TLR4 antibody capable of binding specifically to the TLR4 receptor for the soluble fraction of the MSRV/HERV-W Env protein.~~

20. (Withdrawn) The method of claim 18, wherein the anti-MSRV/HERV-W Env-SU antibody is selected from the group consisting of: 3B2H4, 13H5A5, and 3H10F10, and wherein the anti-TLR4 antibody is HTA125.

21. (Canceled)

22. (Previously Presented) An antibody capable of specifically binding to a region selected from the group consisting of:

amino acid residues 122–131 of SEO ID NO:3;

amino acid residues 312–316 of SEQ ID NO:3; and

amino acid residues 181–186 of SEQ ID NO:3.

23. (Currently Amended) The antibody according to claim 22, wherein the antibody is produced by a culture of hybridomas from mice cells after immunization with a soluble fraction of a multiple sclerosis-associated retrovirus/human endogenous retrovirus-W envelope protein (MSRV/HERV-W Env protein), wherein ~~said~~ the soluble fraction comprises the sequence set forth in SEQ ID NOs: 1 or 3.